



NIGHTHAWK PRODUCTION LLC

Pikes Peak Williams 4-30
 NW NW Sec 30, T13S, R55W
 LINCOLN COUNTY, COLORADO
 API No. 05-73-06478-00

ELEVATION

R.B. 5,155'
 G.L. 5,143'
 KB 12'
 BHT 165'
 Spud date: 09/15/12
 Completion

Lat: 38.89285
 Long: 103.60563
 660' FNL 660' FWL

Not to scale

Prepared By: Harold Mayland
 Date: 9/25/2013

Geological tops:		
Niobrara	2320	Cherokee
Dakota	3348	Atoka
Stone Correl	4830	Morrow
Wolfcamp	5026	Warsaw
LKC	5920	Arbuckle
Marmaton	6348	

6595
6844
7255
7678
7756

Drilled hole 12 1/4"
SURFACE CSG: 8 5/8" 24# J55 ST&C @ 328'
 Cmt: 130 sks Class G to surface

Production Tubing

Drilled hole 7 7/8"

Production Casing: 5 1/2" 17# N80 L T&C @ 7,835'
 Cmt: Lead 358 sks TXI 12 ppg, 1.79 yield, tail 397 sks
 TXI 1.79 yield, full circulation thru out job.

TOC 2,650' (CBL)

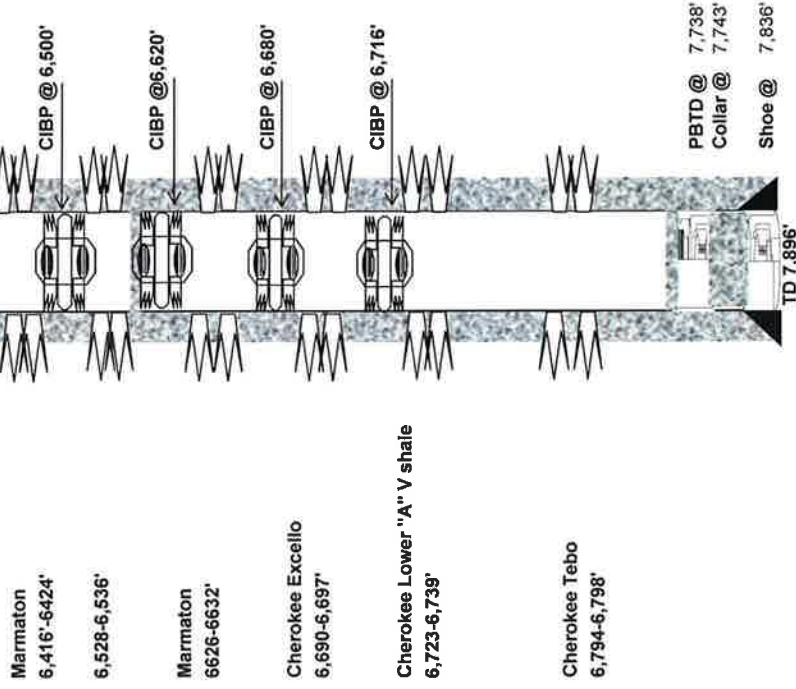
5 1/2" 17# J55
 I.D. 4.892
 Drift 4.767
 Burst 7740
 Lin ft/bbl 43.01
 BBL/linft 0.0232

2 7/8" J55 EU 8RD
 I.D. 2.441
 Drift 2.347
 Burst 7,260
 Lin ft/bbl 172.7500
 BBL/linft 0.00579

Port Collar @ 3,332'

2 7/8" X 5 1/2"
 Lin ft/bbl 65.71
 BBL/linft 0.0152

Tubing	Qty	Length	Depth in hole
KB difference		6.00	6.00
Avg Jt length 32.51			
2 7/8" EU 8RD J55 tbg	202	6,566.73	6,572.73
Sealing Nipple		1.10	6,573.83
Packer 5 1/2" X 2 7/8" Crest 3		5.20	6,579.03
			6,579.03
			6,579.03
			6,579.03
Total Joints			6,579.03
Rods			
Polish rod 1 1/2" x 22'			None
Pony rod			
Pony rod			
Pony rod			
Pony rod			
7/8" rods			
3/4" rods			
1" weight rods			
2 1/2" x 2 x 20' RWBC w/2.5' spray metal plunger			



NOTE:

- 10/03/12 Perforate 6794-6798'
- 10/10/12 Acidize 6794-6798' w/400 gal 15% MCA
Set CIBP @ 6780', perf 6723-6739'
- 10/11/12 Acidize 6723-6739' w/1600 gal 15% MCA
- 10/15/12 Acidize 6723-6739' w/1000 gal 15% MCA
- 10/16/12 Set CIBP @ 6715', Perforate 6690-6697'
- 10/17/12 Acidize 6690-6697' w/700 gal 15% MCA
- 01/08/13 Drilled out CIBP's @ 6,712 & 6,780'
- 04/02/13 Set CIBP @ 6716'
- 04/03/13 Acidize 6690-6697' 4200 gal 15% HCL
- 06/17/13 Set CIBP @ 6680', Perforate 6626-6632'
- 06/18/13 Acidize 6626-32' w/600 gal 15% HCL
- 06/19/13 Acidize 6626-32' w/600 gal 15% emulsified acid
Flushed w/84 bbls KCL
- 09/04/13 Set CIBP @ 6,620' w/ 2 sks cmt, perf 6528-6536'
- 09/05/13 Set CIBP @ 6,500', perf 6416-6424'
- 09/06/13 Acidize 6416-24' w/1500 gal 15% HCL flush w/86 BBLs.